



Facultat de Ciències Jurídiques
i Econòmiques · **FCJE**

MARKETING PLAN OF VIDRES, S.A.

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DEGREE IN BUSINESS ADMINISTRATION

AE1049 – FINAL GRADE WORK

ACADEMIC YEAR 2018-2019

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1. EXECUTIVE SUMMARY

The present study consists of a Marketing Plan for the company Vidres, S.A., located in Villarreal (Castellón), which is dedicated to the manufacture and distribution of frits, glazes and ceramic colours.

Due to the changing environment in which we currently find ourselves, it is necessary to take in account the threats and weaknesses, as well as the strengths and opportunities of the company, to set the objectives of the company and identify marketing strategies that can transform the negative aspects into strengths for this company and maintain and take advantage of the strengths and opportunities that the company has.

In the study carried out, an analysis of external and internal factors was carried out, which allows us to highlight that the ceramic industry is a broad sector and that it provides great benefits to companies dedicated to the production of frits and glazes, and to their large clients, companies dedicated to the manufacture of tiles. The importance in Spain is also highlighted, despite the increase in exports and the crisis in the economy in recent years, which is also improving more and more. You can also see through the analysis, the competition that exists within the industry, as there are not many companies in the small sector of frits and enamel, but all have very competitive prices and high quality products.

After the analysis, we were able to make a diagnosis of Vidres and thus highlight its main weaknesses, threats, strengths and opportunities. We also emphasize that the main weakness of the company is its low production capacity and its main threat is the strong competition from large foreign multinationals that sell at much lower prices. Its main strengths are its capacity for differentiation and the quality of the products offered, and as great opportunities to take advantage of in the future is to continue to increase investment in research and development and open new production plants in strategic locations.

In conclusion, after analysing the various points, Vidres is considered a prestigious company within the province of Castellón and with much international presence, and within the sector to which it is dedicated, is well positioned and has the loyalty of its customers, something that is very important to expand its customer base. It also focuses on new trends and reacts quickly to the needs of its consumers, but to continue to reach its customers and keep being competitive in the sector, the company has considered that it should focus on continuing to innovate in the design of its products, open new production plants that increase its production capacity and be present in social networks, because today is a growing trend among society and is a good way to promote itself.

2. INTRODUCTION

This report is a Marketing Plan of the company Vidres, S.A. which is located within the ceramic sector, as a final year, in the degree of Business Administration of the Universitat Jaume I of Castellón de la Plana in 2019.

This Marketing Plan includes a description and analysis of the company, as well as an analysis of its position within the industry in which it is located. The work consists of four main parts that will analyse the situation:

The first part is an internal analysis that includes the presentation of the company and the company's resources and capabilities.

The second part is an external analysis consisting of a PESTEL (Political, economic, socio-cultural, technological, ecological and legal factors) and an analysis of Porter's 5 competitive forces (Bargaining power of buyers, bargaining power of suppliers, threat of new entrants, threat of substitute products and rivalry among existing competitors).

The third part is an analysis of the market and demand. On the demand side, the consumption, the consumer and the purchasing decision process are analysed.

The fourth part is a diagnosis of the situation through a SWOT analysis or also known as matrix or SWOT analysis, to study the situation of the company taking into account the internal and external analysis, as well as previous research.

Finally, a marketing plan is elaborated explaining the development and manufacturing process of a new product, as well as the clients to which it could be destined. The objectives and strategies of the company will be defined and an action plan will be created based on these objectives in order to try to achieve them in a certain period of time. The Marketing Plan has a control section, a schedule and a budget. To finish the work, an executive summary is made.

3. ANALYSIS OF THE SITUATION

3.1. Internal analysis

3.1.1. Company's presentation

Vidres S.A. was founded in 1975 in Villarreal (Valencian Community, Spain) with the aim of offering answers to the needs of the ceramic sector, making products with a high technology, innovation, design, quality and service. In the same year, its facilities located in the neuralgic center of the ceramic tile sector in Spain were put in operation. Vidres is dedicated to the manufacture of frits, glazes and ceramic colours used in the ceramics tile industry.

As referred to on the website of Vidres (2013): The 70s is known as the decade of the fast double firing. The 80s are accompanied by important technological changes that drive the development of the Spanish tile sector, especially stoneware and porous single firing. In the 90s the development of materials for the production of porcelain stoneware arrived. It is a decade of expansion in the foreign markets, in which Spanish colourings achieve world leadership.

Nowadays, the company put at disposal of its costumers a wide range of frits, glazes, screen printing, inkjet colours, ceramic colours, granulates and an extensive range of special glazes such as metallic, iridescent, micaceous, photo-luminescent or bactericidal.

The mission of the company is "to respond to the needs of the ceramics industry trough innovation, design, technology, quality and service."

The vision of the company is "export our products to every continent with the objective of bringing ceramics technology to all the corners of the world."

Vidres S.A. have a big presence throughout the world. They have several subsidiaries abroad which allows them to work in the most important markets. Furthermore, they work in the five continents and its customers receive a personal attention and service what guarantees a high capacity of differentiation and the highest quality standards.

3.1.2. Company resources

3.1.2.1. Human resources

Vidres attribute the success to their team of professionals and the value of people. As you can read on Vidres website (2013): "They observe, research, analyse, experiment and verify, to help us make into reality our dream: to be a large company. Their qualifications, experience and dedication are our greatest resource".

As Font de Mora, J. said in an interview for REDIT (2018): "What has worked for us has been to have a staff of workers who are very committed to the company and to bet one hundred percent on R+D+i with all the available resources".

Vidres has more than 200 employees in offices, laboratories and production plants. There is a difference in requirements when selecting workers, of course to enter to work in the plant does not need a high qualification, the most important thing is to have minimal experience in the sector. On the other hand, the office and laboratory staff mostly have university and higher education.

The analysis of the structure of the company must begin with the top management. Vidres has 4 main shareholders. Two of them hold 31.71% of the shares, Joaquín Font de Mora and María José Font de Mora. The other two minority shareholders with 18.29% are Juan Bon and Rafael Ibañez. Joaquín Font de Mora and Javier Villar are in the general management of the company. The councillors are Maria José Cabrera and Pascual Font de Mora.

Continuing with important figures in the company, Vicente Nebot is the commercial director and is in charge of coordinating two departments dedicated mainly to treating and looking for clients. These two departments are the national department and the export department. The first deals with Spanish clients and the second with international clients.

The sales department is in charge of controlling prices and launching products. It is formed by 4 people who are in charge of recording sales transactions, other tasks such as managing loads in containers or trucks and being in continuous contact with the export department.

The purchasing department is in charge of providing the company with all the materials necessary for the production and daily operations of the organization. This department is directed by Adrián Tomás and is formed by 2 more people, one dedicated to the purchase of raw materials and the other dedicated to services. Its main tasks are to assess whether to buy at the best possible price, record all purchases of the company

and together with the accounting department ensure that it has sufficient capital to carry out purchases of materials and services.

The administration and accounting department is composed of 10 people and headed by the financial director Alberto Rodriguez. As mentioned above, it is responsible for ensuring the proper use of financial resources together with the purchasing department, in addition to receiving and managing documents of all kinds.

The engineering department is headed by Joaquín Villar. The main functions are the proper management of the production plant, control of logistics and maintenance of machines as well as purchase specifications when necessary.

The design department has more than 20 workers in charge. This department tries to be in continuous innovation following the objectives set by the company and to prove new ideas that still nobody has carried out in the sector. In addition to the use of specific programs, Vidres has highly qualified employees in its design and R+D+I laboratories. The designers are in permanent contact with the commercials in order that both follow the same line of action.

Finally, the Human Resources department formed by Javi Bon and Belén Rubert. It is responsible for the selection and recruitment of all staff under the supervision of Javier Villar, one of the two general managers of the company.

3.1.2.2. Physical resources

The physical resources of a company are those assets that are necessary and must be maintained to carry out the daily activities and operations. This set of tangible assets includes buildings, plants, factories, transport or machinery, among others. Physical resources require planning for maintenance and renewal.

Vidres

As noted on the web site of the company (VIDRES, 2013), Vidres has one of the most modern facilities within the ceramic sector, in addition to having the most advanced technologies, which allows them to be leaders in service. They have several specialized departments such as design or development, and also modern laboratories and a technology centre in their pilot plant.

The design department is responsible for imagining how the tile industry will evolve, so they have their own space to exploit creativity and feed themselves in the vanguard. Its mission is to imagine the aspect of tomorrow in order to make it a reality today. The development department is made up of technicians and designers who are

responsible for materializing the great ideas that may arise in the company, and for that, they have all the available resources.

The laboratories analyse the samples, measure the quality of the raw materials, research to be in continuous improvement and develop prototypes for what will be new products in the future. Vidres has laboratories for Quality Control, R+D+I, Prototype Development, Technical Assistance or Applications. One of the references in the sector is the technological centre that is located in the pilot plant of the company. It has a great equipment for the development of new prototypes and later to study its impact on an industrial scale. The main objective is to ensure its customers a perfect start-up in their facilities. (VIDRES Web Page, 2013)

Colores cerámicos

Vidres, S.A. has carried out an ambitious business operation in 2018 with the acquisition of Colores Cerámicos, manufacturer specialized in colours since 1989. In this way, Vidres incorporates all types of colours and pigments into its product range.

Vidres adds a new milestone to its successful trajectory that, since now, incorporates the ability to manufacture all types of pigments that enrich and add value to its already innovative vanguard products.

The idea is that each one of the firms acts independently, but complementing each other and keeping the Colores brand active. The combination of the prestige and quality of Colores, together with the guarantee and excellence of Vidres, make up an expansion of the company's capacity to respond to the increasingly tough demand of today's ceramic market.

As specified on the website (Colores Cerámicos, n.d.), the entire range of Colores products follows a strict quality control guaranteed by the International Standard ISO 9001 certificates. Its applications are multiple, since the industries to which these products are destined are the field of ceramics, glass, porcelain, glassware and vitreous mosaic. A wide range that demonstrates the professionalism and commitment of Colores to the demands of its customers.

The services offered by the company Colores are established according to the needs of the market. Quality is the main objective and also:

The attention to the client is very important, for that reason, Colores offers a personalized and friendly treatment. In addition to using the standard range of colours in the market, we have a personalized service depending on each of our customers. The

philosophy of Colores has always been to work in a personalized way with each of its products, whether they are colours or glazes, in terms of tones and technical characteristics. They adjust the models for each client so that the final result is always different and personal. For this reason, its team is dedicated to the task of offering a quality product through work in its two laboratories of colours and glazes. (Colores Cerámicos web page, n.d.)

Colores is one of the first companies in the market in terms of speed when it comes to serving their customers. It has very large stocks of pigments, both base colours and security or deposit to its customers. The capacity of response of the firm is very fast, what allows to maintain the fidelity and confidence of the client, who is in last instance the engine of this company. Production capacity is one of their strengths. To do this, Colores uses modern machinery that allows it to be at the forefront of the sector. (Colores Cerámicos web page, n.d.)

Currently, Colores Cerámicos dedicates more than half of its workers to the R+D+i area, which endorses its commitment in the field of research and innovation. In this commitment, the company has two laboratories working at full capacity to obtain the best defined designs on the market.

The design and research department works every day to innovate in textures and special effects, adapting products to new regulations. Aesthetics and technique are the two main objectives with which Colores wants to stand out from the rest.

From the beginning, Colores has had a special sensitivity to the environment. Proof of this is the integrated environmental certificate ISO 14001. In this company take great care not only of emissions to the outside but also of working costs. Respect for the environment is a commitment, not only externally, but also internally. In the laboratories they work to always choose the least polluting raw materials in an effort to combine quality and sustainability. (Colores Cerámicos web page, n.d.)

On the Colores website you can read (n.d.) "The Colores management is committed to quality, respect and protection of the environment, and assumes that working in this direction is its daily challenge". For this reason, they rely on the quality assurance and environmental management system in order to improve the quality of their products day by day, reduce non-quality costs, increase production, continually improve service and customer service and consider in all processes the environmental impact that their activity has on the environment.

On their website you can ensure (Colores Cerámicos, n.d.) that the policy of quality and environment is one of its basic pillars. A policy whose basic objectives are to satisfy the client and employees, to commit to the maximum with the protection of the environment and to improve in the development of its activity. The basic premise that supports all this policy is to comply with the environmental protection laws and regulations that affect its field of action. (Colores Cerámicos Web Page, n.d.)

Sun inkjet ceramics

Sunic is a company constituted by 3 leading companies in their respective sectors: Sun Chemical, S.A., Vidres, S.A. and Colores Cerámicos, S.A. (acquired by Vidres in 2018). On the web page they are defined as (SUNIC, 2012): “It is a company dedicated to the manufacture and development of inkjet inks for the ceramic industry”. It is important to mention this company as it was formed by two companies of the Vidres group. Both Vidres and Colores Cerámicos contribute their knowledge in the development and manufacture of their products, engineering, logistics or ceramic pigments.

The manufacturing plant is located in Onda (Castellón), incorporated with the latest milling technologies with a process based on concentrates, an advanced quality control and an automatic filling and dosing system. Automated control and real-time data recording translates into reliable results, resulting in a consistent, high quality product.

The demands of customers in the ceramics industry have evolved over the years and have become increasingly high. SUNIC inkjet inks are developed to the highest standards of quality and technology to meet these specific needs. These are some of the characteristics of the product defined on their web page (SUNIC, 2012):

- Wide range of colours and products with special effects.
- Custom ink formulations.
- Maximum stability for use in different ceramic technologies such as red body, white body, porcelain, ceramic flooring, porous ceramics or glass. They can be used for first fire, double firing, third fire...
- Excellent compatibility with glaze.
- Outstanding colour consistency, batch to batch.

In terms of the technology used for ceramic inkjet, SUNIC has some essential features to meet the needs of its customers.

They have a maximum compatibility with the print head, which increases its life time and reduces the maintenance of the machine, increasing its productivity. In addition, print

defects are minimized and ink consumption is reduced. The inks are suitable for all existing print heads in the ceramic industry.

The range of inkjet inks is thoroughly checked before, during and after production. The objective is to achieve maximum quality taking into account the product being made, how it is made, what characterises it and the conditions in which it is launched on the market. They include a wide list of parameters in the Sunic quality control as they are: Monitoring and follow-up of the key performance indicators, control of the processes in real conditions and time, inks with excellent properties that allow to reach the maximum precision, inks with high intensity and great tonal stability, control of statistical process to detect possible errors in the measures, external statistics with the data facilitated by our clients; and all this to achieve an optimal balance of performance by volume. (SUNIC, 2012)

Finally, service and customer care are very important aspects in the company. At SUNIC they believe that the use of inks can be a key factor in the success or failure of their customers and they also believe that their relationship does not end after the sale, but must be monitored. This is done by overseeing the work and development of your products to make sure they are running smoothly. Supervision is carried out by qualified technical support staff. Some of the measures used for monitoring are: Consultancy for the configuration of printers which increases the profitability of the product, training of operators in use, customer training, advice to the buyer depending on the use or the product you want to design and support in graphic design to reach a final result that optimizes the use of inks and involves a lower cost, higher speed and less wear of the print head.

3.1.2.3. Marketing resources

3.1.2.3.1. Product

Is the axis around which the rest of marketing strategies of a company are designed. Therefore, the company must ensure, before launching it on the market, that the product meets the customer's needs. It will also be an important aspect that the characteristics of the product are in line with the image, policy and the strategy of the company so that the customer feels identified with the product they buy.

As you can read in an article by *El País Economía* (2006): Vidres offers more than 4000 different forms of glazes according to the needs and demands of its customers. The production process of the product is ready in 24 hours to be served to the customer, and depending on the desire of them, the company can adjust its equipment to produce the tile according to the chosen colour, texture and designs chosen.

The type of product that Vidres sells is characterized by its quality and innovative design. Not having the productive capacity that some of its competitors have, the company must focus on looking for new designs that revolutionize the market. A few years ago, Vidres launched Kerinox glazes and metallic glazes that made a huge impression on its customers and were very successful in the tile market. That's why it invests so much in the constant innovation of its products, because it is its main competitive arm.

3.1.2.3.2. Price

It is the most influential marketing tool in the decision of consumer purchase. Also for the company is the only instrument that provides income, especially in the short term. The fixation of this will be determined by the company but also in relation to that of our competition.

The price of the products that Vidres sells usually varies depending on the price of the raw materials, essential elements for the production of glazes and frits.

The reality is that Vidres cannot compete on prices than most of its big competitors. It is simple, their production capacity is much lower (while Vidres' ovens produce 10000 kilos, some competing companies are producing 40000 kilos). This is why Vidres' products are more expensive than those of the competition because production costs are higher. Of course, some of their products are also more expensive because they are of better quality and personal design. It should also be mentioned that the national market is less demanding and prioritizes accessible prices over quality. On the other hand, things change in the international market, where some customers don't mind paying higher prices because they are looking for products with very specific designs and qualities. These characteristics are perfectly satisfied by Vidres, and that is why its main customers are foreigners.

3.1.2.3.3. Distribution

It is the part of marketing that is responsible for the process of making a product or service available for use or consumption. It is the intermediate process between production and sale.

Vidres distributes its products with different transports and varied packages depending on the clients and their requirements.

At national level, the most used containers to distribute glazes are cocios and are transported in trucks. The national customers usually ask for it in liquid state. There are also national customers who demand raw materials in bulk. In this case Vidres buys them

from a supplier and sells them a little more expensive to make a profit. These bulk raw materials are transported in vats.

Another product that is distributed is frit. This product is always packaged in bigbags and is usually sold in powder or grain form.

Other forms of packaging are sacks that are used for example to distribute ceramic colours. One of the products that some companies demand is the additives to make the mixture that constitutes the glazes. These additives are commercialized in deposits and in liquid state.

Internationally, the products are transported in two ways: by pallets in air transport (airplanes) and in containers in sea transport (ships). It should be pointed out that the glazes are transported for export in the state of powder or grain. The reason for this is that, as they are long journeys, they cannot be transported in a liquid state, as they lose quality. There are two forms of packaging for export products: bigbags and sacks.

3.1.2.3.4. Communication

It is the marketing tool that is used to promote products by sending attractive messages to the consumer to encourage purchase.

Vidres presents its new products generally through the great fairs of the ceramic sector. The two main fairs are CERSAIE and CEVISAMA. In the last edition of CERSAIE, held in September in the Italian city of Bologna, Vidres S.A. presented a great diversity of innovative ideas framed within the current market trends. The incorporation of the latest advances in digital decoration technology was present in each and every one of them.

3.1.2.4. Financial resources

Firstly, it must be said that there is little information about the financial resources of the company Vidres.

It is evident that the first financial resource of any company is the income from the sales of its products. The information published in 'Ranking de empresas' (*Las provincias*, 2016), showed that the sales of the company had increased over the previous year. Vidres had a sales volume of more than 51 million euros in 2016 and a profit for the year of 4'2 million euros. In other words, it increased its sales volume by 5.4% and its annual profit by 29%.

As Joaquín Font de Mora stated in an article in the newspaper *Levante* (Llorens, 2018): "Figures similar to those of 2016 were obtained in 2017. Although the price of

strategic raw materials and the impossibility of passing on its total increase in the final price of the product, has been felt in our income statement and has resulted in a balance not as good as the previous year, as sales have grown but turnover has remained the same".

In 2016, it was awarded a repayable loan from the Ministry of Industry and Trade amounting to 206 thousand euros. This loan was launched through a ministry program called 'Reindustrialization and Promotion of Industrial Competitiveness', and was destined for the implementation of a new pelletizing line in the production plant.

One of its latest investments was the acquisition of the company Colores Cerámicos in 2018. This operation represents an expansion of the firm's capacities and it is expected that its business will increase by 20%.

3.1.2.5. Research, development and innovation

Vidres has one of the most modern and well-equipped R+D+i laboratories in the sector. This laboratory develops new products that set trends, which is a great help when their customers create more innovative products.

It is necessary to emphasize some of the products that were exclusive creations of Vidres and that have been patented. The Kerinox is one of them, a screen printing for polishing with a steel look for use in porcelain stoneware. Another is Lighton, which is iridescent glazes and silkscreens. Finally, we must also highlight Metallic, a metallic glaze whose appearance is capable of reproducing glazes. Apart from these three patented products, it has a wide variety of glazes and silkscreens developed exclusively in the company.

Vidres defines itself as a vanguardist company and is innovating in the ceramic sector with very modern systems such as digital design. As you could read in an article of *El Periódico Mediterráneo* (2019): "This revolutionary method reduces the production time and allows the introduction of granules using glue as a way of fixing, allowing new decorative effects with different finishes. Some customers from all over the world have already been interested in this new way of designing digitally and have been very surprised with its incredible results".

The majority of interested parties are foreign clients as Vidres is a company that exports to all continents. As Vicente Nebot (commercial director of the company) remarked at the last Cevisama fair: "Customers from South America and Eastern Europe have been our big market, although we have also worked for Spanish companies" (*El Periódico Mediterráneo*, 2019).

Previously, one of the star products of Vidres was mentioned and it is causing a great sensation. As commented in the article of *El Periódico Mediterráneo* (31/01/19), the Kerinox series provides added value in innovation and development and differentiates it from the rest of the products on the market due to its incomparable particularities.

3.1.3. Company capabilities

3.1.3.1. Organizational and distinctive capabilities

The primary structure of the enterprise is a functional structure. The two general managers are at the head of the company managing the different departments that are in charge of the different activities of the company. Each department has its head to divide the work in a correct way and they are the ones who have direct contact with the managers when it comes to ensuring the good functioning of the company and making the right decisions.

Vidres has some defining characteristics: a dominant technology, qualified and efficient workers, a wide product portfolio and a great attention to new trends and innovation.

Vidres follows a strategy of differentiation, its main objective being to be known by the quality, unique design and innovation of its products.

Its production capacity is lower than that of its strongest competitors, so it cannot compete on prices. For many years, Vidres has been committed to risking everything to innovation and design. That is why it created the Technology Centre within its headquarters and strengthened the design department, one of the largest in terms of personal company. For these reasons, the type of customer is usually foreign, because they are looking for the highest quality rather than a good price for the product. In addition, some customers in the same sector come to the company interested only in the designs and not in the final product. They then pay for the design only, and then manufacture it in their facilities. The ideal for the company is to sell high quality glazes (which have a high price and a unique design) because this is an added value for the particularity of having been created in the laboratories of Vidres.

Some of its star products that were patented are the range Kerinox (screen printing to polish with steel look for use in porcelain stoneware), Lighton (iridescent glazes and screen printing), Metallic (metallic glaze whose appearance imitates metals) and Rainbow (another type of iridescent screen printing).

Due to the characteristics of its product, Vidres sells more in foreign markets than in the national market, although the national market is never left aside as it is very important for the company.

With respect to the countries in which it operates, India should be highlighted first, where it has a subsidiary (Sterling Ceramics) with its corresponding production plant. In the Asian market, it has customers in Bangladesh, the United Arab Emirates and Indonesia, and is beginning to make its way into the Chinese market.

In the Central and South American market, some very important clients stand out in countries such as Mexico, Ecuador or Guatemala.

In Europe, Germany and Italy stand out above all others (the company has an office building, 'Vidres Italia SRL'). It also has a presence in Russia, an emerging market.

Finally, it has clients in some North African countries such as Algeria, Morocco and Tunisia.

Vidres is present almost everywhere in the world, counting on some subsidiaries in strategic markets to act as local suppliers, to lower costs and to be able to offer a better service to its clients.

3.1.3.2. Value chain

The value chain is a theoretical model created by Michael Porter that helps to describe the activities of a company with the aim of creating value for the final customer and for the organization itself. Managers often ask themselves how to get the most profit out of the inputs that compose the value chain and how they can increase the margin in their commercial activity.

In the specific case of Vidres, just the fact of producing is creating value, because it is a company that transforms raw materials into products for sale.

In order to make a broad deployment of the value chain, it must be understood as consisting of value activities and margin activities, the two main aspects into which it is divided. The first are all the activities carried out by the company and the second is the difference between the total value and the collective cost of carrying out these activities.

Value activities are divided into two broad types: primary activities and support activities.

Primary activities are the set of activities involving product creation, sale and transfer to the buyer including after-sale assistance. These activities are further divided into five categories:

Internal logistics: It is responsible for the management and administration of the inputs and storage of raw materials that are used for the creation of the product. It also deals with the correct distribution of materials once they are unloaded at the company's facilities.

The raw material arrives at the Vidres facilities in tanks, normally 24,000 kilos. The production process begins with the unloading of the tanks containing the raw materials in the silos. The company has two types of silos: glaze silos and furnace silos.

Operations: This stage begins when the raw materials enter the company and the product creation process is carried out. If this process is efficient, an added value will be generated, saving the company money.

In its facilities, Vidres has a different silo for each raw material. The tanks are unloaded into the furnace silos. The raw material falls into the furnaces, where a melting process is carried out with subsequent cooling with water. Through the contact of the materials at high temperature with the water, the product called Frita is created. The frit is used for direct sales to customers, for the production of glaze and for the production of granilla.

The production of the glaze is divided into two main methods: the production in grain for its later sale (only for international clients, since being an export product it could lose quality) and the conversion of glaze in grain into liquid glaze. Liquid glaze is created by grinding the raw material into drums along with water and alumina balls. It is used for sale (normally to domestic customers, as they prefer it in liquid for later use in their production process) and for the production of micronizing. Micronizing is a liquid glaze that passes through Rinajet drying (combustion gas with high speed air), then through the sieve and finally comes out in powder. This product is medium and is not used for sale abroad but is used mainly in screen printing. Screen printing is a mixture of micronized glaze, raw materials and colours produced for later sale.

Finally, granilla is also derived from the frit. It is the result of a process of ground frit plus the intervention of the rotary dryer (without air). Then it passes through the breaker and finally through the sieve (fabrics with holes of different widths), which is responsible for removing the granilla in different sizes depending on customer demands. It also comes in powder to be reused in the future.

External logistics: Once the product is finished, it leaves the production centre and is delivered to wholesalers, distributors and final consumers in some cases.

Once the product is finished, several ways of transporting the raw material are used: containers, cocios, bigbags and sacks.

Containers are only used for long exportation voyages by sea. In this section of international exportation, the raw materials are also transported by airplanes in palletized bigbags.

The cocios are normally used to supply domestic customers who demand the product in a liquid state. The transport method is the truck.

Sacks are used for the packaging of the ceramic colours and also for exportation depending on the demands of the customers.

Marketing and sales: The management of advertising expenses plays a key role in this category, as they are a fundamental part of sales.

The company spends very little of its investment on marketing as it focuses more on investing in design and innovation rather than advertising its products. The client of is very demanding and therefore Vidres does not need to sell the product well, just check that it is of high quality.

Services: The last category of primary activities covers many areas, such as facility care or after-sales service to customers. A company that is strong in this aspect provides confidence and security to its customers.

After-sales service is one of the differentiating aspects of the company. The clients of Vidres look for a very personal treatment after making the purchase, and they need special attention and advice. Most of them continue to buy their products because of the particularity of this service, as well as the quality of the products. To continue with a good service after the purchase is vital to strengthen the relationship with customers and differentiate oneself from the competition.

Support activities are those that sustain primary activities and support each other. They provide supplies, technologies, human resources and many other functions of the company. These activities can be associated with specific primary activities and support the entire chain. Infrastructures, on the other hand, only support the chain and are therefore not associated with any primary activities of the company.

In terms of support activities, departments are linked to primary activities. The engineering department, together with the purchasing department, is responsible for coordinating internal logistics.

The production process is carried out by plant employees supervised by machine operators and also by the engineering department.

Once the product is finished, the sales representatives in collaboration with the sales department take care of the external logistics, because they are the ones who usually deal with customers. In the same way they are in charge of sales, although there are some large customers who are taken care of by the bosses.

The human resources department is in charge of marketing, although it is minimal in Vidres.

Finally, the salespersons and the general directors are in control of service and good treatment to the client, depending on the type of client.

3.2. External analysis

3.2.1. Analysis PESTEL

A PESTEL analysis is carried out with the aim of identifying the factors that affect the ceramic industry within the general environment of the companies that make it up. Specifically, the political, economic, social, technological, ecological and legal situation in Spain will be studied in depth, always with a focus on the ceramic sector where Vidres operates. Some of the information used to carry out this analysis was taken from the 'Tile Sector Report' elaborated by the company KPMG (audit and legal advisory services) in 2018.

3.2.1.1. Political Factors

In the political field, the ceramic sector is characterised by a period of invariability due to the fact that the Spanish political system is very stable, and furthermore, the legislation and regulation of economic activity is quite flexible and beneficial.

It must be taken into account that, when talking about an industrial sector, strong continuous investments must be made in order to update its fixed assets and in this way be able to continue innovating. For this reason, it is essential that subsidies or aid be provided by different public bodies in order to encourage the application of improvements in the sector.

3.2.1.2. Economic Factors

From data published by KPMG (2018), the Spanish economy grew by 3.3 percent in 2016, one of its highest rises since the beginning of the economic crisis, according to data from the National Statistics Institute (INE), which places the economic growth of our

country above the average of the European Union in that year. This recovery was mainly due to the impulse of the foreign sector. The improvement in the performance of Spanish exports compensated for the slowdown in domestic demand, which saw its figures corrected downwards, mainly due to the performance of investment, which shot up by 8.7% in 2015. Employment data continued to show a progressive improvement over the past year. According to the Economically Active Population Survey (EPA), the number of unemployed fell by 541,700 people. The unemployment rate fell to 18.63%, almost two points lower than in 2015, to 4,237,800 unemployed, its lowest level since 2009. The economy's improved performance in 2016 was reflected in higher levels of consumer confidence. At the end of the year, however, this indicator registered significant decreases due to political instability. The ratio of public debt to GDP in 2016 fell for the second consecutive year to 99.4% compared to 99.8% in 2015.

3.2.1.3. Social Factors

As already mentioned, the construction sector is practically stagnant and, therefore, the execution of works in the home has decreased considerably in recent years. This has caused the sale of tiles to decrease significantly in the domestic market.

In addition, powers such as China and India, which are increasingly important in the tile industry, have lower costs in their labour and raw materials, which means that their product can be sold at lower prices than European tiles, and at similar quality. This makes them very competitive, which hurts the European economy, as Western customers will prefer to buy the cheapest products. (KPMG, 2018)

On the other hand, it also highlights the influence of trends and fashion in the tile sector, which is often set by Italian manufacturers. For this reason, companies have to renew themselves and continue creating new designs and formats so that over the years, Spain remains at the forefront in terms of design and quality of its products. The importance of the "Tile of Spain" brand makes it stand out from the competition and gives remarkable prestige to Spanish products.

Finally, another important aspect to point out in the ceramic sector is the climate. Not all countries use tiles for the floors of their homes. For example, in northern countries where the weather is cold, wood is more used for construction and decoration. However, tiles are often used in countries with higher temperatures and less pronounced winter seasons. In this way, some Latin American countries are demanding tiles, and are helping to increase the export of Spanish companies.

3.2.1.4. Technological Factors

Currently, companies in the ceramic sector have large investments in machinery and capital goods, so that the manufacture of tiles is practically mechanized. This is why, thanks to the new technologies applied in the sector, personnel costs have been reduced in recent years, as the participation of personnel is limited to the supervision and vigilance that the production chain does not stop or errors occur.

The constant evolution of the sector has led companies to develop new production processes, new positioning and grip technologies and, above all, products for new uses. In short, the world market has resulted in a constant change towards design, quality and innovation, which has led our manufacturers to constant improvement of their products, based on specialisation and an increase in R+D+i activities, with the collaboration of Technological Institutes and the Institute of Ceramic Technology (ITC).

One of the tasks in the production process of tiles that is most intensive in R+D+i is the manufacture of frits, glazes and ceramic colours. The frits and glazes companies have an outstanding number of workers dedicated to R+D+i tasks, which represents a differential element in terms of design and finished quality of ceramic tiles and flooring.

Therefore, the star product of Spanish technology in the sector would be the glazing lines and, within these, digital injection printers.

For the ceramic sector, adapting injection moulding in the production process has meant a change of concept in manufacturing and, above all, in the resulting materials, both in terms of design, the creation of new materials and adaptability to installation in new spaces. This technology has led to the entry of the ceramic sector into the decoration market, allowing the production of customised pieces. (KPMG, 2018)

3.2.1.5. Environmental factors

As we can read in the article published by Cerem Comunicación (22/07/2016), the ceramic sector is one of the most active in Spain today. It is also one of the production sectors that generates the greatest environmental impact during the manufacturing to the elimination. Firstly, it should be taken into account that obtaining the raw materials used to manufacture ceramics already has consequences for the environment.

Paraphrasing the Cerem's information (2016), the generation of large quantities of dust by blasting, transporting and storing the materials used in the manufacture of the products can have negative consequences on the environment. Another factor that can be annoying is the noise produced when explosions are made to obtain these raw materials. In addition, these explosions can generate alterations and changes in the land.

The transport and manipulation of raw materials generate a high atmospheric emission, which can be harmful both for the environment and for the workers involved in the production process. The same happens in the cooking and drying processes, in which several gaseous compounds are involved that can be volatilized. In the same way, the glazing of ceramic tiles and the gas in the furnaces can cause the emission of toxic substances and heavy metals. In addition, fluorides and oxides may be emitted in the manufacture of such parts. Inert, special and hazardous solid waste is also generated in this process. Some notable waste substances are lubricant, grease and packaging waste.

In fact, the waters surrounding a ceramic factory may contain suspended solids, anions, heavy metals, boron compounds and organic fibre. In addition, the energy used during production and the noise generated in the process are sources of environmental impact.

In the ceramics industry and in many other industries, there are environmental protection laws that must be respected. The IPPC (Integrated Prevention and Control of Communication) is responsible for regulating these laws and aims to minimise pollutant emissions.

Through the documents known as BREF, a series of measures are attempted to reduce the environmental impact on aspects such as hazardous emissions, recycling of materials or water saving. These measures are developed especially for each industry and are known as BATs (Technical Improvements Available).

In the CEREM article (2018), some of the most effective improvements in the case of the ceramic industry are listed. They are as follows:

- "Avoiding the emission of diffuse power particles by applying enclosure solutions and suction and filter systems that could be effective."
- "Reduce the pollutant gases emitted by using techniques such as the addition of calcium-rich additives or absorbent sleeve filters."
- "Reduce energy consumption by recovering the heat emitted by the furnaces that bake the ceramics."
- "Avoid an excessive level of noise that can be achieved by enclosing machines or soundproofing techniques."

3.2.1.6. Legal factors

In the legal framework, the report prepared by the Institute of Ceramic Technology (ITC, 2012) offers some legal keys. It is important to focus especially on the frits sector, as it is the product where the whole production chain begins. Firstly, according to the European Inventory of Existing Chemical Substances, frit is identified as a chemical product. In the expansion of the sector and its technological evolution, safety and environmental protection become very important.

As mentioned above, frit is a chemical substance and is controlled by REACH (Registration, Evaluation and Authorisation of Chemical Products), which was implemented in 2007. It is a European regulation that ensures that these substances do not affect humans and the environment in a negative way. It applies to producers, importers and intermediate users. In 2008, a Classification Study of ceramic frits was published, and as a result of this study, Annex V appeared, which ensured that most of the frits produced are not dangerous to human health or the environment, because it is a vitrified material and therefore inert.

Based on information from ITC's report (2012), it must be said that frits are composed of raw materials among other substances, and these may include dangerous elements. Some metals may show bioavailability and suppose a risk. The CLP Regulation and Directive 67/548/EEC help us to prevent these risks. CLP is the new European regulation on classification, labelling and packaging of chemical substances and mixtures. The legislation introduces into the European Union a new system for classifying and labelling chemicals that is based on the United Nations Globally Harmonized System (UN GHS).

In 2009, the Frits Consortium was created to ensure that the requirements established in the REACH and CLP Regulations for the registration of frits and other chemicals are respected (EC 266-047-6 CA 65997-18-4). The Consortium has developed an internal classification system with the aim of classifying frits into different categories for both CLP and ADR purposes. The criteria are based on the elements contained in the frits, the typology and the information available.

The Consortium is located in Castellón, one of the most important production centres in this sector worldwide. Currently, the consortium is made up of 36 companies (which constitute the Regular Members) and affiliated companies (among which are the largest producers/importers of European frits).

The Substance Information Exchange Forum (SIEF) also participates in this organism. This forum facilitates the registration of a substance through data on its specific properties and avoids duplication in the relevant studies. SIEF members should

also agree on the classification and labelling of the substance as far as possible. Other commitments of the Consortium are to evaluate studies, propose new research, analyse the safety of frits, establish consensus on classification and labelling or develop a transport classification for registered frits. (ITC's report, 2012)

3.2.2. Analysis of the 5 competitive forces of Porter

3.2.2.1. Bargaining power of buyers

Bargaining power of buyers is defined as the ability of customers to impose prices and conditions of sale.

In the case of the ceramic sector, it is a market with many suppliers and many customers. Buyers can avoid the services of some suppliers and turn to others without being too seriously affected.

For this reason, customers cannot impose prices or conditions of sale as the variety of prices, design and quality of products is very wide. It is true that there are differences between companies in terms of product characteristics, but since there are many manufacturers and distributors, the customer does not have control over the prices and conditions of sale.

3.2.2.2. Bargaining power of suppliers

The bargaining power of suppliers could be defined as the ability to control prices and supply of raw materials. All companies need raw materials for the production process, so most suppliers remain in a strong negotiating position. Some of the measures may be to increase prices or reduce the quantity of product available.

In the case of Vidres and the experience lived in the company, the suppliers of raw materials that supply the company are in a strong position because they are an essential component of the final product. The raw material can be used for the mixture made for the processing of frit and glaze, or simply for sale, when the company adopts the role of supplier.

Suppliers of raw materials keep raising the prices of some raw materials because they know that they are indispensable for the production of many products in the ceramic sector. In 2018, there was an average increase of 15-20% and some of them even increased their price by 70%. As a result, concern has increased among companies in the sector, which are seeing their margins reduced and losing profitability in a large part of their products.

These are the main suppliers of Vidres and the raw materials they distribute:

Euroarce: They have a wide variety of raw materials such as Feldspar SPS, Hywhite, Kaolin SM-1, Clay MS-01, Kerbrient, WhiteFlux, A25B and Feldspar FC-100.

Kaltun: It is the company's main supplier of Feldspar MW-63.

Quimialmel: It is one of the major suppliers of raw materials and some of them are very important for the development of Vidres products. Some examples are Alumina, Boric Acid, Dense Soda Carbonate, Etibor, Dolomite MPQ and Zinc Oxide.

Sibelco Minerales Ceramicos: Supplier of Quartz, Nephelin-32, Dolomite and HVD Clay.

Mario Pilato: distributes some raw materials such as Barium Carbonate, M-7 (Zirconium Silicate), Colemanite and 325 Zirconium Flour.

Incusa: It is the main supplier of Feldspar FK-100S.

Guzmán Global: It also has a great variety of products and supplies Vidres with Armin 325, M-7, Wollastonite, Barium Carbonate or Alumina Hydrate.

3.2.2.3. Threat of new entrants

In terms of production in the ceramic sector, Asia has almost 70% of the same worldwide, with 10% in Europe and 9.7% between South and Central America. Countries such as China and India in Asia, Spain and Italy in Europe, and Mexico in Central America are at the top.

It seemed that the entry of new competitors was unlikely, but as a matter of fact a world power such as the United States is stopping consuming tile as an importer (almost 70% of consumption) and is beginning to make a heavy investment in producing and exporting it.

In the *Levante* article written by Llorens (2018) some data are provided: "The production of ceramic floor and wall tiles Made in USA has been growing steadily and unstoppably for eight years. So much so that in 2017, 90.6 million square meters of ceramic coverings came out of the factories located in the North American country, in a country that consumed 283 million square meters in total (+5.1% more in one year)".

3.2.2.4. Threat of substitute products

The pressure of substitute products like paints, natural wood, carpets, vinyl floors, natural stones and powder and resin agglomerates in the ceramic market is due either to special uses, climate, custom, aesthetics and, in most operations, price.

3.2.2.5. Rivalry among existing competitors

The rivalry within an industry takes shape when companies use various tactics to gain a position. There are several ways to improve the competition and these are some of them: prices, advertising battles or product launches.

It must be specified who are the main competitors within the sector in which our company operates. Among the companies that manufacture and market frits and glazes, there are four that stand out as the strongest competitors of Vidres: Torrecid, Esmalglass, Ferro Spain and Colorrobia.

Firstly, a minimum introduction to the four companies that are going to be analysed as the main competitors is necessary, based on information from the ranking of companies published by the newspaper *Las Provincias* (2016).

One of the leaders in the sector is the Torrecid Group, formed by more than 35 companies in 26 different countries. It is one of the largest manufacturers of coverings in the ceramic and glass sector, controls 8% of the world market in the sector and has 3000 workers worldwide. Its turnover is 600 million euros and aims to reach 1000 million in 2020.

An important competitor in Spain is Esmalglass, present in more than 14 countries between America, Europe and Asia, with more than 1000 employees and its own facilities in the countries in which it operates. Its turnover is more than 90 million euros.

Another competitor that is not far behind is Ferro Spain, a subsidiary of the American chemical giant Ferro Corporation, which has a turnover of almost 1 billion euros worldwide. Ferro's subsidiary in Spain has a turnover of more than 200 million euros and has almost 800 employees.

The last one is Colorrobia, one of the strongest companies in the sector with a turnover of around 160 million and a workforce of almost 400 employees. It has 15 offices in countries such as Mexico, Italy and Brazil.

Vidres cannot compete in the prices at which these companies sell their products, nor can it compete in production capacity. The result of this is that the sales volume of the 4 companies mentioned is much higher. On the other hand, if we compare them using a very important figure such as the result of the year, the difference is not so big, even Vidres comes out on top in one case. The result of Vidres was more than 4.2 million but for example in the case of Esmalglass it was only 221,000 euros. The other three competitors (Ferro Spain, Colorrobia and Torrecid) all exceeded 17 million euros of profit, given their high volume of sales and in some cases at high prices.

Returning to the characteristics of the products, the difference between Vidres and its competitors is the high quality of its products and their unique and exclusive design. In recent years, they have launched innovative products that have been patented, such as the Kerinox range and the Metallic range, serigraphy types and metallic enamels. Anticipating market trends and continuing to try new things that no one has tried makes the difference compared to rivals.

In terms of international expansion, Vidres can only compete with Esmalgass and Colorrobia. Although the latter have more offices, they are present in a similar number of countries. Torrecid and Ferro Spain play in another league. The first one has a group of companies formed by 35 and presence in 26 countries, something unreachable for the others at the moment. The second belongs to the multinational group Ferro Corporation with presence in 22 countries and more than 50 plants worldwide. The main handicap of Vidres is that it only has one production plant abroad, although in a strategic location such as India.

3.3. Market analysis and demand

3.3.1. Market analysis

TABLE 1. Main export areas of ceramics

AREAS	2015 (millions m2)	% of World Exports
European Union (28)	856	31.3
Rest of Europe (including Turkey)	139	5.1
North America (including Mexico)	65	2.4
Central and South America	126	4.6
Asia	1,514	55.4
Africa	35	1.3
Oceania	0	0.0
TOTAL	2,735	100

Source: Amimac Survey dept. through Ceramic World Review nº118/2016

As can be seen in the table and in the volume nº 118 of *Ceramic World Review* (2016), exports amounted to a total of 2,735 million square meters. The world leader in exports was the Asian continent with 55.4% of the total. The 3 countries within the continent with more influence were China (39.8%), India (4.5%) and Iran (4.1%).

Europe was responsible for 31.3% of the world total exports. Spain and Italy lead the ranking with 13.8 and 11.6 respectively.

2.4% of the total were exported in North America, 2.2% is taken by Mexico, therefore it controls more than 90% of exports in this area.

In South America, Brazil stands out above the rest, controlling 2.8% of exports worldwide.

3.3.2. Demand analysis

As J. Font de Mora said in the REDIT interview (2018): "Demand has become much more specialised, as new market niches have been created that were not thought of years ago. Tile enters our homes not only as flooring and cladding, but also as worktops, as part of some furniture, as decoration, garden slabs, technical ceramics, intelligent ceramics for home automation and even as a ceramic ceiling. The functional load is becoming more and more evident in ceramics".

In order to realise how much the ceramic sector is in demand, it is important to make a detailed study by zones and by countries of world production. Obviously most companies produce based on the orders they have from their customers, or what is the same, in relation to the quantity they demand. The study is based on published information by Amimac survey dept. through *Ceramic World Review* in volume number 118.

TABLE 2. Main producing areas of ceramics

AREAS	2015 (millions m2)	% of World Product.
European Union (28)	1,218	9.9
Rest of Europe (including Turkey)	572	4.6
North America (including Mexico)	327	2.6
Central and South America	1,193	9.7
Asia	8,627	69.8
Africa	413	3.3
Oceania	5	0.0
TOTAL	12,355	100

Source: Amimac Survey dept. through *Ceramic World Review* n°118/2016

The largest ceramic production area in the world is Asia with a figure of 8,627 million square meters per year, accounting for almost 70% of world production. Europe follows with 1,800 million per year, producing 14.5% of the total in the world.

Central and South America also stands out with 9.7% of world production, and the African continent, which has greatly improved in recent years in the production of ceramics (3.3%).

In terms of countries, the podium is occupied by China with almost half of world production (48.3), Brazil with 7.3% and India with 6.9%. Countries such as Spain, Italy or Vietnam are about 3.5% of total production in the world.

3.3.2.1. Consumption analysis

The analysis of consumption in the ceramic industry will be carried out on the basis of data offered by Acimac and distributed by the magazine *Ceramic World Review* in 2016. These are figures from previous years but have not changed much at present, so they would be very close.

TABLE 3. Main consumer areas of ceramics

AREAS	2015 (millions m ²)	% World Consumption
European Union (28)	910	7.5
Rest of Europe (including Turkey)	532	4.4
North America (including Mexico)	505	4.1
Central and South America	1,279	10.5
Asia	8,166	67.1
Africa	731	6.0
Oceania	52	0.4
TOTAL	12,175	100

Source: Amimac Survey dept. through *Ceramic World Review* n°118/2016

As detailed in the following table and in the volume number 118 of *Ceramic World Review* (2016), Asia is the leading area in ceramic consumption, reaching 8,166 million square metres. This amount represents 67.1% of world consumption. The 3 most important countries are China (40.1%), India (6.3%) and Vietnam (3.3%). The European continent accounts for 11.9% of world consumption, with Turkey and Russia the most prominent with 1.9% and 1.6% respectively.

Central and South America takes 10.5%. Brazil, with 6.7% of world consumption, is the main country consumer of ceramics. In North America, countries such as USA and Mexico stand out with percentages around 2% of world consumption.

Finally, mention Saudi Arabia as the sixth on the list, with 2.2% of world consumption.

3.3.2.2. Consumer analysis

In order to carry out a good consumer analysis, the needs, tastes and preferences of the customer must be analysed. In the specific case of Vidres, it is a company that only sells to other companies, that is to say, that does not sell to particulars. The main clients are companies in the ceramic sector, specifically tiles. It is true that companies involved in the manufacture of glazes also buy and sell to each other, but only when necessary, because after all they are in direct competition. The analysis of the consumption and purchase decision process is carried out on the basis of the knowledge acquired over time in the company.

As mentioned before, the consumer of the products sold by Vidres is demanding. They are looking for quality and unique and innovative designs.

Its presence in the national market is lower than its presence abroad because in Spain the price is prioritized over the quality of the products, to be able to produce a lot and have a large volume of sales. Although there are exceptions, and Vidres works with world-class customers in the tile sector, such as Porcelanosa, Badocer or Argenta. These companies have a wide range of tiles and therefore come to Vidres to buy high quality glazes for their best types of tiles.

The company's most important customers are international. They are demanding companies in terms of the quality and design of the products they buy. In any case, it is a priority for them to buy at a good price because otherwise they would turn to other competing companies. Vidres satisfies the tastes of its best customers with a search for continuous improvement, constant innovation and a very important aspect, highly valued by them: after-sales service. These clients look for a very personal treatment after making the purchase, and they need special attention and advice. The after-sales service is a differential aspect in comparison to its competitors.

3.3.2.3. Analysis of the purchase decision process

In the case of Vidres, the purchasing department divides its work into purchases of raw materials and services. As far as raw materials are concerned, this is an essential element in the production of products. The supplier's price, quality and speed are evaluated. The purchasing manager always has the last word when it comes to making decisions. In addition, satisfaction is also taken into account once the product has been used, in order to repeat with the same supplier or resorting to a different one instead.

As far as services are involved, their quality is evaluated above all else. Obviously the price is also an important issue, but if a supplier does his work perfectly, the company will not try to change to another because it is cheaper. At the time of contracting them, other clients are usually asked for information to know if they have been satisfied with their work.

4. DIAGNOSIS OF SITUATION (SWOT)

TABLE 4. Diagnosis of situation (SWOT)

INTERNAL ORIGIN		EXTERNAL ORIGIN
STRONG POINTS	<u>STRENGTHS</u> <ul style="list-style-type: none"> · Wide variety of products · Differentiation: high quality of the product · Technology Centre: latest trends of innovation and technology · Excellent and personalized customer service · Advanced production facilities · Service on a global scale 	<u>OPPORTUNITIES</u> <ul style="list-style-type: none"> · Anticipate the needs of its customers · Increase the investment in Research & Development · International expansion · Continue building manufacturing plants (local supplier)
	<u>WEAKNESSES</u> <ul style="list-style-type: none"> · Increase in the Price of raw materials · Decrease in profitability and reduction of margins · Not present in social networks · Small production facilities · Less production volume than its competitors 	<u>THREATS</u> <ul style="list-style-type: none"> · Shortage of raw materials in the future (limited resource) · Export problems in the future because of the expansion process in the Asian glaze industry (higher costs and environmental regulations in Spain) · United States, new competitor in the production process

Table 4: Own source

Strengths: They are all those skills and abilities that allow a company to create a competitive advantage over its competitors. Vidres is one of the leaders in the sector, and these are some of the aspects that make it strong:

- The company has a wide variety of frits, glazes and inks. Among them more than 4,000 different products produced and designed with the strictest quality standards.
- Vidres follows a strategy of differentiation, where the quality of the product and the constant adaptation to the demands of its customers and the market in general are very important.
- It has a Technology Centre within its main headquarters made up of more than 70 employees. This allows it to advance in the latest trends of innovation and technology.
- Providing an excellent and personalized customer service.
- It has very advanced production facilities, as well as a technical office in Italy and a production subsidiary in India, which allows it to provide service on a global scale.

Weaknesses: This section includes all those elements and resources that can be an obstacle to the proper functioning of processes within an organization. Some of them are:

- The considerable increase in the price of raw materials used to manufacture glazes, frits and ceramic colours is one of the main weaknesses of Vidres and the whole sector in general.
- The successive price increases of the raw materials, which represent around 60% of the cost price, have a negative impact on the final prices of the products. As a consequence, margins are being reduced more and more, which means a decrease in profitability, where in some products it is already limited.
- Vidres is not present in social networks. This is a weakness with respect to other competing companies because nobody doubts that they are one of the greatest communication tools today. Their good use serves to improve image and relationships with customers.
- Another of the weaknesses that Vidres has with respect to other competing companies is the production capacity. It has advanced facilities but relatively small compared to other companies, so it cannot compete in production volume.

Opportunities: All those factors that are generated in the environment that can affect in a positive way and the company can take advantage of them to improve its situation.

- The environment around the ceramic industry is very changing and companies must adapt quickly to the trends that arise in the market. It is very important for Vidres to be able to anticipate the needs of its customers.
- Increase investment in R & D, since spending in Spain and especially in Valencia is lower than in most countries in the rest of Europe as regards this area. Reversing this situation may be key in the future because the sector in which Vidres operates has competitors all over the world.
- For Vidres it is important to take advantage of the opportunities that appear in some emerging markets. They should therefore aim to continue building manufacturing plants in the markets to which they sell. They already have one in India. It has been shown that the local supplier serves the needs of its customers better.

Threats: They are all those situations external to the project that can negatively affect the project when the time comes.

- One of the main obstacles the company may face in the future is the shortage of raw materials. It is an essential resource for the manufacture of their products and is known in the sector that is a limited resource.
- The expansive process of the Asian glaze industry can cause export problems to distant markets, as our country works with higher costs and has to face investments imposed by environmental regulations that some international competitors do not have. Only by improving the quality of the product, design and service will it be possible to maintain leadership.
- The entry of a new competitor into the production process, such as the United States, may pose a threat in the future. It is one of the world's great resource powers.

5. MARKETING PLAN FOR THE MERCHANDISING OF TECNOWOOD GLAZE

5.1. Definition of the product and the market

This is a proposal to launch on the market a type of product that is not yet manufactured or commercialized in Vidres: a new glaze whose appearance simulates wood.

This type of glaze will be available in porcelain stoneware and glazed stoneware. Porcelain stoneware can be glazed or not, and can be applied to floors, coverings and ceramic walls. Glazed stoneware, on the other hand, is usually only used for flooring. As it has a layer of glaze on top, it makes it very resistant to stains and easy to clean.

Wood-looking enamel is made from frits, natural clays, additives and ceramic colours. The last component, the colours, will be obtained through the company Colores Cerámicos (owned by Vidres, S.A.). The company has a wide range of pigments and inks ideal for simulating what is expected to be the final product. The three tones of brown (reddish, dark and gold) would be the most suitable for wood simulation. The commercial name of the new product will be TECNOWOOD.

Its main application is a new trend that is currently having great success, ceramic parquet. This new product came to replace the traditional wooden parquet, and has several advantages such as its low porosity suitable for wet areas or its high resistance over time.

In the domestic market, the two main manufacturers of ceramic parquet are Porcelanosa and Marazzi Iberia. They could be two big customers as their production capacity is enormous and their products are known all over the world.

In the international market, it would be very important to enter the Chinese market, with 40% of world consumption of ceramics. Also in Brazil, where the company used to have a production plant which stopped working because it was not profitable at the time. In addition, countries such as the United States and Saudi Arabia are at the top of world imports and are very powerful markets in every sense.

Finally, most of the production of the new TECNOWOOD glaze would be moved to the production plant in India, thus reducing production costs and being a local supplier in the country, also lowering the costs of product distribution in the Asian market.

5.2. Definition of objectives

First of all, when defining the objectives that the company is going to set with the launch of this new product, we are going to use four perspectives: the financial perspective, the customer perspective, the internal process perspective and the resource perspective.

From the financial perspective, two clear objectives: maximizing sales and increasing the profitability of products. In principle, it will not be difficult to make the new glaze profitable, as saving on the purchase of ceramic colours can be an advantage in lowering production costs.

From the perspective of customers, the main objective with the marketing of TECNOWOOD is to get new customers. The second objective is to increase customer satisfaction.

From the perspective of internal processes, two main objectives will be set: optimizing production processes and increasing image position.

Finally, from the perspective of resources only one objective will be set: increasing employees.

At all times, generic long-term objectives have been set by the company. The following is a list of specific goals to be achieved in a given period of time. The table helps to better visualize them:

TABLE 5: Definition of goals

PERSPECTIVE	GOALS
FINANCIAL	<ul style="list-style-type: none">· Increase sales by 10% in the next year· Increase the profitability of its products by 7%
CUSTOMERS	<ul style="list-style-type: none">· Increase customers by 5% per year· Increase customer satisfaction by 25%
INTERNAL PROCESSES	<ul style="list-style-type: none">· Reduce production costs by 10%· Increase position image
RESOURCES	<ul style="list-style-type: none">· Increase employees by 10% over last year

Table 5: Own Source

5.3. Choice of marketing strategies

5.3.1. Competitive and positioning strategy

The positioning strategy of Vidres is clearly the strategy of differentiation. The company has always been characterized by the quality of its products, a unique design and a very good after-sales service. In order to continue improving the image in the mind of the consumer, it is important to continue with the same strategy that has given good results. In a competitive strategy of differentiation like the one the company follows, investment in Research and Development is the starting point for making that difference by which customers will become loyal to the brand and lose price sensitivity.

TECNOWOOD glaze is designed for a specific customer and not for all tile producers. The potential customer are the tile manufacturers who are dedicated to the manufacture of the new ceramic parquet.

It is true that Vidres will not be the first company to design a glaze imitating wood, but it will allow them to join this select group, as well as differentiating themselves from those who have not yet done so. In comparison to other competing companies, Vidres uses modern systems such as digital design. It is a revolutionary method that helps reduce production time and allows the introduction of glue granules to fix. New decorative effects are achieved with different finishes.

Following the characteristics that the company has since its beginnings, satisfying the customer with a good price has never been a priority, Vidres customers know the quality and exclusive design of their products.

In the specific case of TECNOWOOD glaze, the production process will be cheaper than that of other glazes, as it is made with natural clays that have not been fired and with ceramic pigments obtained at a very reasonable price.

5.4. Action plans

The action plans are responsible for achieving all the objectives and goals set by the company. It is important to establish who will be responsible for carrying them out and to do so in the established time as far as possible. The following is a table of action plans which will be in line with the goals set by the company:

TABLE 6. Action plans

GOALS	ACTION PLANS
Increase sales by 10% next year	<ul style="list-style-type: none">• Sale of TECNOWOOD in important markets like China and United States
Increase profitability of its products by 7% and reducing production costs by 10%.	<ul style="list-style-type: none">• Production of TECNOWOOD in the production plant in India
Increase customers by 5%	<ul style="list-style-type: none">• Introduce the new product in countries with little influence of the company• Present the new product in the great fairs of the ceramic sector at competitive prices• Launch the product in April as a launch strategy
Increase workers by 10% next year	<ul style="list-style-type: none">• Reopen the production plant in Brazil
Increase customer satisfaction by 25%	<ul style="list-style-type: none">• Discount for the volume of purchases• Fast distribution in the Asian market
Increase the image position and increase visits on the website by 25%	<ul style="list-style-type: none">• Spend 5% of profits in advertising campaigns• Create an account on Instagram and Twitter

Table 6: Own source

The company's first objective is to increase sales by 10% next year. The action plan to carry it out is the sale of the new star product, TECNOWOOD glaze. If this product is introduced in the Chinese and American markets, it could be a success for the company and will have an impact on sales, which could even exceed 10% in one year. Vidres is not known for selling its product at a good price. In this case, the costs of TECNOWOOD are much lower, so it can be introduced in the Chinese and American markets at a competitive price. The price is established per kilos, which means that the initial selling price of the new glaze will be 4.87€/kilo. If the goal of producing 600,000 kilos a year of

this new product is achieved and it is subsequently successfully put on the market, TECNOWOOD will achieve sales for more than 2.9 million euros. The result in one year would be unbeatable because sales would increase by 5.8% just in the marketing of the new glaze without taking into account all the other products.

The second objective is to increase the profitability of its products by 7%. The action plan to achieve this objective would be to transfer the production of TECNOWOOD to the production plant in India, where production costs are lower (labour, electricity, environmental investments). This measure would increase the profit margin per unit, increasing the profitability of the product. In addition, with this same action plan, another objective of the company would be reached, that of reducing production costs by 10%.

The company's third objective is to increase customers by 5%. The action plan to achieve this would be to introduce the new product in countries where the company has little influence. Countries such as China, United States (emerging market) or Saudi Arabia (one of the largest importers) could be good destinations for the new glaze and a way to establish long-term relationships with new customers. In order to introduce the new glaze into these markets, an office should be opened in each country. In order to increase the number of customers, it is essential to make a good impression at the product launch. There are factors such as the launch date that may be essential to have a greater impact on the sector. The action plan to make a big impact is to launch it in April, just before 'Coverings' in Orlando (USA) and two months before 'Ceramics' in China, and to promote the product in these two great fairs. This action plan will allow customers in the countries where the new glaze is to be introduced to know the product better.

The fourth goal is to increase workers by 10% next year. One plan of action that could have an effect is to reopen the production plant in Brazil. It could have double profit, because it would increase the number of workers in the workforce and would also retake contacts with former customers in the country, which is one of the largest consumers of ceramics in the world. With the action plan "to open offices in new markets", it would be possible to increase the number of workers.

In order to increase customer satisfaction, a discount would be introduced for the volume of purchases. Customers who order more than twice a month will receive a 10% discount price on their next purchase in appreciation of their loyalty. This will increase their satisfaction and cause them to be loyal to the company. The second one is the speed of distribution in the Asian market. By producing the glaze in India and contracting a service on urgent/express transport (a group of people only working for Vidres), the

distribution of the product to important countries such as China, Indonesia or Vietnam will be faster.

Finally, the last objective is to increase the image position. To achieve this, the first action plan will be to spend 5% of profits in advertising campaigns. The second action plan is to open new accounts in major social networks such as Instagram and Twitter to promote the quality of products and good service offered to customers. It would offer the possibility of buying products through social networks, associating links to the website. This action plan will result in almost 100% because the company is not present in the main social networks at the moment.

Actions plans following the marketing mix (4Ps)

Price: The first action plan is to introduce the new glaze in Chinese and American fairs with competitive prices to arouse the interest of customers in these countries. As mentioned above, new producers in the sector such as China and the United States sell at prices almost unreachable to the rest of the world. This is due to their high production capacity and low costs. In order to be able to compete with them, Vidres has achieved a price that almost adjusts to the market but with a difference, the unique and novel design of the TECNOWOOD glaze. With this action plan it will be possible to increase sales in these new markets and gradually try to match forces with the great powers of the sector in terms of sales volume. The second price action plan is to offer a 10% discount on the price on their next purchase to customers who make more than two orders per month. The main purpose of this action plan is to increase sales. It is aimed at large companies that have high production capacities. Discounts provide an incentive for them to continue buying instead of going to the competitors. In the short term it does not bring much benefit, but it can lead to long-term relationships with customers and higher profits in the future.

Product: Three main action plans in relation to the product. The first one is to sell TECNOWOOD in important markets like China and United States. Entering new and important markets gives the company an international reputation and recognition. Vidres is characterized by following a strategy of differentiation so it is key to the growth of the company. The second one is to produce the new glaze in the production plant in India. Producing the new product in the Indian manufacturing plant means a very large cost reduction for the company, not only in production costs but also in distribution costs. In terms of production, the costs of electricity, water and labour are much cheaper. Moreover, control over environmental investments is not as strict as in Spain. On the

other hand, service to customers on the Asian continent improves considerably. The service is cheaper and more efficient, because the product reaches the customer in much less time. The last one is to reopen the production plant in Brazil. This action plan aims to increase the number of customers in such an important market as Brazil, the main consumers of ceramics in South America. In addition, it increases coverage to customers in the Americas, where Vidres has valuable customers in countries such as Mexico, Colombia and Guatemala.

Place: The first plan of action is to offer customers the possibility to buy products through social networks with direct links to the website, something very fashionable lately. Selling products through social networks increases customer visits and attracts new customers. Through the links, access to the website also increases and this will result in a greater interest in all the products available to the company. The second plan is to open new offices in countries where the company has little influence. Markets such as China, America or Saudi Arabia need perfect coverage and the best way is to settle in the country. It would not be necessary to set up a production plant, but the fact of having offices in the country improves the relationship and treatment with clients, and would even help to increase them. The third plan of action is to offer an unbeatable distribution service to customers through express transport with a group of distributors working exclusively for the company. Good customer service is one of the characteristic values of Vidres and must continue to improve day by day. Having an express service increases the efficiency in the distribution of the company and therefore customer satisfaction. The last plan is to launch the product in April, as a launch strategy just before the China and USA ceramic fairs. The decision to launch a product can be key to its success in the market. The new TECNOWOOD glaze must be introduced in the most powerful markets in the world and some of them are China and the United States. Reaching the fairs of these countries with a new product is very important to attract the attention of new customers and to achieve success in influential markets in the ceramic sector.

Promotion: The first action plan is to present the new product in the great fairs of the ceramic sector. Fairs are the biggest events where products can be promoted in the ceramic sector. They bring together all the major companies and are the best way to be known among those who may be new customers in the future. It is important that interested customers are in contact with the new product and with the company's sales representatives in order to have all the necessary information when making the purchase decision. The second one is to open new accounts in major social networks like Instagram and Twitter, to increase the good image of the company and to be promoted

through them. Instagram is the most fashionable social network of the moment. Posting photos of products and the company's presence at fairs can be very beneficial for the company when it comes to making itself known internationally. Twitter is a very powerful social network because it is very open and allows people to give opinions. A Twitter account can help increase visits to the website through publications with links. In addition, it can also be used to advertise job offers in the company with the collaboration of companies dedicated to job search. A good way to know customer satisfaction is to conduct surveys through these social networks. The last action plan consists of using 5% of profits for television advertising campaigns. Conducting a television advertising campaign is almost always good business, because it offers one of the best returns on investment. Today there is a lot of interaction between TV and online media, which can lead to increased visits to the website and social network accounts. In addition, it can be very effective to broadcast advertisements in the breaks of dedicated programs that have some relation with the sector.

5.5. Control

An inspection of the above goals has to be made to see if they are being carried out correctly, so there will be measures for different quantitative goals:

In order to "Increase sales by 10% by 2020", the company should look at the changes it plans to make in terms of sales figures that have been achieved over these years, and make a sales prediction for 2020 to see if the target can be achieved.

With this sales estimate for next year, you can also know if you can achieve the goals of "Increase new customers and satisfaction of existing customers".

In order to check if the presentation of new products at ceramic fairs (COVERINGS 2020 in April and CERAMICS 2020 in June) works and this has an effect on the increase in clients, it is necessary to control the expenses involved in being present at the fairs and if it really generated long-term profitability.

The objectives of "Reduce production costs by 10%" and "Increase the profitability of products by 7%", can be checked for viability through the prediction and control results of the previous objectives. It would be necessary to review the results in the production plant in India to be able to plan the production process and to be able to carry out an exhaustive control, which would serve to evaluate the profitability of manufacturing the product there.

Finally, the two objectives that aim to improve the image position: "Spend 5% of profits in advertising campaigns" and "Create an account on Instagram and Twitter". In the first one, it is necessary to check the result that advertising campaigns have given or if on the contrary it is more profitable to devote a part of the profits to other activities. Advertising campaigns should be controlled through the money they are generating and their impact on the good image of the company. Social networks, being something new in the company, are a bet for the future and it is difficult to control their impact.

5.6. Schedule

TABLE 7. Schedule

	M	O	N	T	H	S	2	0	2	0			
PLAN OF ACTIONS	J	F	M	A	M	J	J	A	S	O	N	D	J
Open offices in new markets	X	X	X	X	X	X	X	X	X	X	X	X	X
Product launch strategy date				X									
Production in India (lower costs)	X												
Fast distribution in the Asian market	X	X	X	X	X	X	X	X	X	X	X	X	X
Reopen the production plant in Brazil										X	X	X	X
5% of profits in advertising campaigns	X												
New accounts on Instagram and Twitter	X												
New product in Coverings and Ceramics				X		X							

Table 7: Own source

5.7. Budget

Table 8. Budget

ACTION PLANS	BUDGET
OPEN OFFICES IN NEW MARKETS (CHINA, USA, SAUDI ARABIA)	Cost of an office in China = 150,000€ Cost of an office in USA = 200,000€ Cost of an office in Saudi Arabia = 180,000€ TOTAL COST = 150,000+200,000+180.000 = 530,000€
PRODUCTION IN INDIA (LOWER UNIT COST) COST PER YEAR OF THE PRODUCTION PROCESS	Unit cost per kilo of raw material = 0.58 Cost of electricity and water by producing 50.000 kilos per month = 435€ 8 employees controlling the process (1 Month) = 900€x8 = 7,200€ TOTAL COST PER MONTH = 0.58x50,000+435+7200 = 36,635€ (1 kilo = 0.7327) TOTAL COST PER YEAR (600,000 kilos) = 36,635€x12 = 439,620€
URGENT/EXPRESS SERVICE IN ASIAN MARKET	10 employees x 1,000€ = 10,000€ 10,000€ x 12 months = 120,000€
REOPEN THE PRODUCTION PLANT IN BRAZIL	Commissioning of machines = 450,000€ Charges = 150,000€ Maintenance staff = 14,000€ TOTAL COST = 614,000€
5% OF PROFITS IN ADVERTISING CAMPAIGNS	5% of 4.200.000€ = 210,000€
PRESENCE IN SOCIAL NETWORKS	Community manager = 150€ per month COST PER YEAR = 150x12€ = 1,800€
NEW PRODUCT IN COVERINGS AND CERAMICS	Stand Rate COVERINGS = 3,500€ Stand construction COVERINGS = 25,000€ Customer expenses COVERINGS = 4,500€ Employees expenses COVERINGS = 1,350€

	Stand Rate CERAMICS = 3,650€
	Stand construction CERAMICS = 27,300€
	Customer expenses CERAMICS = 4,300€
	Employees expenses CERAMICS = 11,400€
	TOTAL COST =
	3,500+25,000+4,500+1,350+3,650+27,300+4,300+11,400 =
	81,000€

Table 8. Own source

TOTAL BUDGET = 1,996,420 €

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